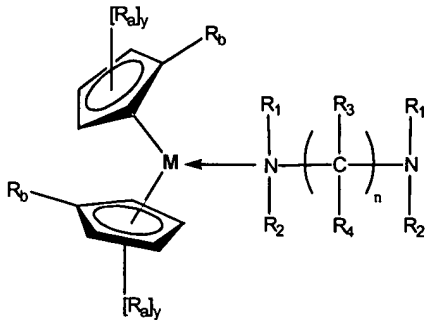
What is claimed is:

1. A compound having the formula (I):



wherein:

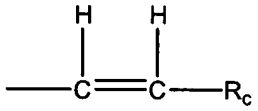
M is a transition metal selected from Groups 4 to 10 (IUPAC, 1990);

R_a is H or C1 to C6 alkyl, optionally substituted;

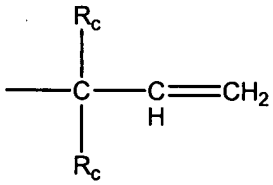
y is an integer of 1 or 2;

R_b is H, or a vinyl group having

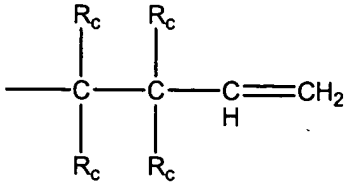
the formula (II):



or the formula (IIA):



or the formula (IIB):



wherein R_c is H or C1 to C6 alkyl, optionally substituted;

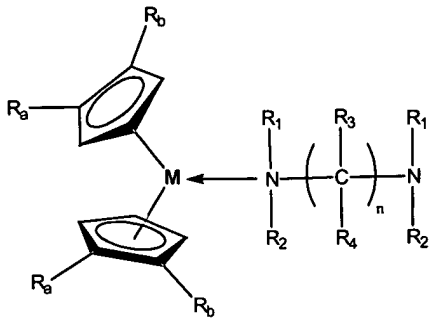
R_1 and R_2 are independently selected from C1 to C6 alkyl, optionally

substituted;

R_3 and R_4 are independently selected from H or C1 to C6 alkyl, optionally substituted; and

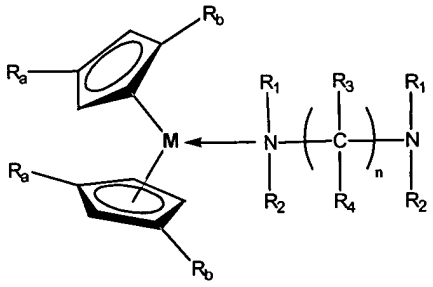
n is an integer of 2 or 3.

2. The compound of claim 1, having the formula (IA):



wherein M, R_a, R_b, R_1, R_2, R_3 and R_4 have the same meanings as defined in claim 1.

3. The compound of claim 1, having the formula (IB):



wherein M, R_a, R_b, R_1, R_2, R_3 and R_4 have the same meanings as defined in claim 1.

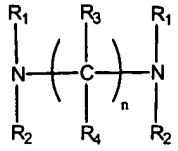
4. The compound of claim 1, wherein R_a and R_c are each independently selected from the group consisting of hydrogen, methyl, ethyl, propyl, isopropyl, n-propyl, butyl, n-butyl, tert-butyl, pentyl, n-pentyl, iso- pentyl, n-hexyl and iso-hexyl, all optionally substituted.

5. The compound of claim 1, wherein R_1 and/or R_2 are each independently selected from the group consisting of methyl, ethyl, propyl, isopropyl, n-

propyl, butyl, n-butyl, tert-butyl, pentyl, n-pentyl, iso- pentyl, n-hexyl and iso-hexyl, all optionally substituted.

6. The compound of claim 1, wherein R_3 and/or R_4 are each independently selected from the group consisting of hydrogen atom, methyl, ethyl, propyl, isopropyl, n-propyl, butyl, n-butyl, tert-butyl, pentyl, n-pentyl, iso- pentyl, n-hexyl and iso-hexyl, all optionally substituted.

7. The compound of claim 1, wherein the moiety

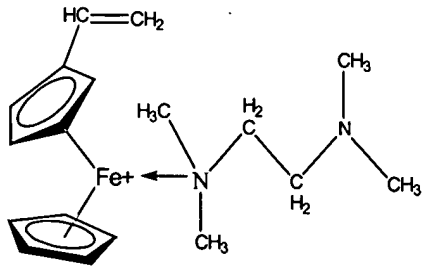


in formula (I) is selected from the group consisting of tetramethyl-1-methyl-ethylenediamine, tetraethyl-ethylenediamine, N,N'-diethyl-N,N'-dimethyl-ethylenediamine, N,N'-dimethyl-N,N'-diethyl-1-methyl-ethylenediamine, tetrapropyl-ethylenediamine, N,N'-dimethyl-N,N'-dipropylethylenediamine, tetramethyl-propylenediamine, tetraethyl-2-ethyl-propylenediamine, N,N'-diethyl-N,N'-dimethyl-propylenediamine, and N,N'-Diisopropyl-N,N'-dimethyl-1,3-propanediamine.

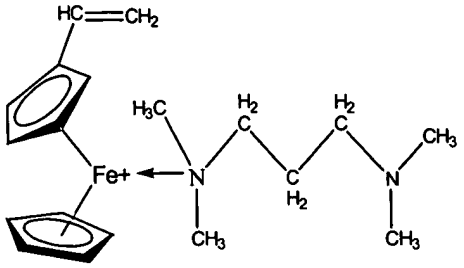
8. The compound of claim 1, wherein M is a metal selected from the group consisting of Fe, Co, Ni, Mn, Zr, Cr, Ti, Vn, Os, and Ru.

9. The compound of claim 1, wherein the overall charge of the compound is positive.

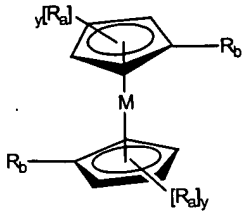
10. The compound of Claim 1, wherein the compound is represented by the formula (VII):



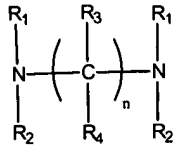
11. The compound of Claim 1, wherein the compound is represented by the formula (VIII):



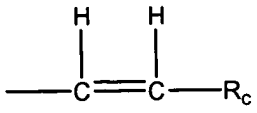
12. A process for preparing an organometallic compound comprising:
reacting a compound having the formula (III):



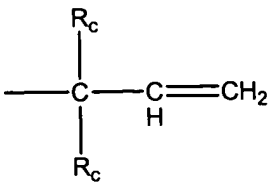
with a compound having the formula (IV):



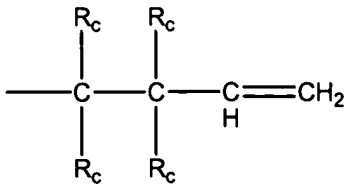
wherein:
M is a transition metal selected from Groups 4 to 10 (IUPAC, 1990);
R_a is H or C1 to C6 alkyl, optionally substituted;
R_b is H, or a vinyl group having
the formula (II):



or the formula (IIA):



or the formula (IIB):



wherein R_c is H or C1 to C6 alkyl, optionally substituted;
R_1 and R_2 are independently C1 to C6 alkyl, optionally substituted,
R_3 and R_4 are independently H or CH_3, optionally substituted; and
n is an integer of 2 or 3;
said reaction being carried out in the presence of an oxidising agent.

13. The process of claim 12, wherein the reaction mixture comprises a polar organic solvent.

14. The process of claim 12, wherein the oxidising agent comprises a chemical oxidising agent selected from the group consisting of a salt of persulfate, chlorate, bromate, peroxide, or a mixture thereof.

15. The process of claim 12, wherein the reaction is an electrolytic reaction carried out in the presence of a support electrolyte, and wherein the oxidising agent is a voltage potential provided by an electrical source.

16. The process of Claim 15, wherein the support electrolyte is tetrabutylammonium hexafluorophosphate.

17. The process of Claim 12, further comprising precipitating the product in a precipitating agent.

18. The use of a compound having the formula (I) as defined in claim 1 as a nucleic acid intercalating agent.

19. The use of a compound having the formula (I) as defined in claim 1 as a catalyst for amine oxidation.